Complete Summary

GUIDELINE TITLE

ACR Appropriateness Criteria™ for endometrial cancer of the uterus.

BIBLIOGRAPHIC SOURCE(S)

Hricak H, Mendelson E, Bohm-Velez M, Bree RL, Finberg H, Fishman EK, Laing F, Sartoris D, Thurmond A, Goldstein S. Endometrial cancer of the uterus. American College of Radiology. ACR Appropriateness Criteria. Radiology 2000 Jun 1;215(Suppl):947-53. [19 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Endometrial carcinoma of the uterus

GUIDELINE CATEGORY

Risk Assessment

CLINICAL SPECIALTY

Obstetrics and Gynecology
Oncology
Radiology

INTENDED USERS

Health Plans
Hospitals
Managed Care Organizations

Physicians
Utilization Management

GUIDELINE OBJECTIVE(S)

To evaluate the appropriateness of initial radiologic examinations for endometrial carcinoma of the uterus

TARGET POPULATION

Patients with endometrial carcinoma of the uterus

INTERVENTIONS AND PRACTICES CONSIDERED

1. Magnetic resonance imaging (contrast enhanced or no contrast)
    - Pelvis
    - Abdomen
2. Chest x-ray
3. Computed tomography
    - Pelvis
    - Abdomen
4. Ultrasound
5. Endovaginal ultrasound
6. Intravenous pyelogram
7. Barium enema
8. Lymphangiography

MAJOR OUTCOMES CONSIDERED

Utility of radiologic examinations in the pretreatment evaluation of endomotrial cancer of the uterus.

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The guideline developer performed literature searches of recent peer-reviewed medical journals, primarily using the National Library of Medicine's MEDLINE database. The developer identified and collected the major applicable articles.

NUMBER OF SOURCE DOCUMENTS

The total number of source documents identified as the result of the literature search is not known.

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Delphi Method)
Weighting According to a Rating Scheme (Scheme Not Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

One or two topic leaders within a panel assume the responsibility of developing an evidence table for each clinical condition, based on analysis of the current literature. These tables serve as a basis for developing a narrative specific to each clinical condition.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Since data available from existing scientific studies are usually insufficient for meta-analysis, broad-based consensus techniques are needed to reach agreement in the formulation of the Appropriateness Criteria. Serial surveys are conducted by distributing questionnaires to consolidate expert opinions within each panel. These questionnaires are distributed to the participants along with the evidence table and narrative as developed by the topic leader(s). Questionnaires are completed by the participants in their own professional setting without influence of the other members. Voting is conducted using a scoring system from 1-9, indicating the least to the most appropriate imaging examination or therapeutic procedure. The survey results are collected, tabulated in anonymous fashion, and redistributed after each round. A maximum of three rounds is conducted and opinions are unified to the highest degree possible. Eighty (80) percent agreement is considered a consensus. If consensus cannot be reached by this method, the panel is convened and group consensus techniques are utilized. The strengths and weaknesses of each test or procedure are discussed and consensus reached whenever possible.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Criteria developed by the Expert Panels are reviewed by the American College of Radiology (ACR) Committee on Appropriateness Criteria and the Chair of the ACR Board of Chancellors.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

ACR Appropriateness Criteria™

Clinical Condition: Endometrial Cancer of the Uterus

Variant 1: Newly diagnosed endometrial cancer - diagnostic work-up.

Radiologic Exam Procedure	Appropriateness Rating	Comments
Magnetic resonance imaging		
Pelvis	8	
Abdomen	4	
Chest x-ray	6	
Computed tomography		
Abdomen	4	
Pelvis	4	
Ultrasound	4	
IVP	2	
Barium Enema	2	
Lymphangiography	2	
Appropriateness Criteria Scale		

1 2 3 4 5 6 7 8 9 1=Least appropriate 9=Most appropriate

Variant 2: Assessing the depth of myometrial invasion.

Radiologic Exam Procedure	Appropriateness Rating	Comments
Magnetic resonance imaging		
Contrast enhanced	9	
No contrast	6	
Computed tomography	6	
Endovaginal Ultrasound	6	
Appropriateness Criteria Scale 1 2 3 4 5 6 7 8 9 1=Least appropriate 9=Most appropriate		

Variant 3: Overall staging.

Radiologic Exam Procedure	Appropriateness Rating	Comments
Magnetic resonance imaging		
Contrast enhanced	8	Contrast significantly improves evaluation.
No contrast	6	
CT	4	
Endovaginal Ultrasound	4	
Appropriateness Criteria Scale 1 2 3 4 5 6 7 8 9 1=Least appropriate 9=Most appropriate		

Variant 4: Lymph node evaluation.

Radiologic Exam Procedure	Appropriateness Rating	Comments
Computed tomography	8	Either computed tomography or magnetic resonance imaging is appropriate.
MRI	8	Either computed tomography or magnetic resonance imaging is appropriate.
Ultrasound	2	
Lymphangiography	2	
Appropriateness Criteria Scale 1 2 3 4 5 6 7 8 9 1=Least appropriate 9=Most appropriate		

Variant 5: Assessing endocervical tumor extent.

Radiologic Exam Procedure	Appropriateness Rating	Comments
Magnetic resonance imaging	8	
Computed tomography	4	
Endovaginal Ultrasound	2	
Appropriateness Criteria Scale 1 2 3 4 5 6 7 8 9 1=Least appropriate 9=Most appropriate		

Summary

Recommended Imaging Approach

Ultrasound, especially with the use of endovaginal sonography, is sometimes considered to be the primary imaging approach. However, in patients in whom ultrasound is suboptimal or in whom the results of imaging studies will directly influence the choice of therapy and guide in therapy planning, the higher accuracy of contrast-enhanced magnetic resonance imaging warrants its use. In patients

presenting with a large endometrial tumor, magnetic resonance imaging should be preferred to computed tomography and should represent the primary imaging technique. If cervical involvement is the major clinical concern, magnetic resonance imaging is the study of choice. However, there are no outcome studies or cost-effectiveness on imaging evaluation of endometrial cancer. The views expressed in the guideline document are a combination of literature review and expert opinion.

Conclusion

Patients with endometrial carcinoma should undergo cross-sectional imaging only in the cases of clinical staging difficulties, including obese patients, patients with large tumors, poor histologic tumor grade, or possible cervical involvement. If imaging is needed, magnetic resonance imaging is the most accurate technique and should be the primary imaging modality.

[See Table 1 in the original guideline document for a revised surgical staging of endometrial carcinoma by the Clinical Federation Internationale de Gynecologie et Obstetrique (FIGO).]

CLINICAL ALGORITHM(S)

Algorithms were not developed from criteria guidelines.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The recommendations are based on analysis of the current literature and expert panel consensus.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

The role of imaging is to depict noninvasively deep myometrial invasion and the presence of lymphadenopathy, and to stage the tumor extent before treatment planning.

Subgroups Most Likely to Benefit:

Diagnostic imaging may also be helpful in a primarily obese, elderly population in which radiation therapy rather than surgery might be advocated as a primary treatment or as a preoperative adjuvant to surgery.

POTENTIAL HARMS

Ultrasound

There is potential for a false diagnosis (false positive) or for a failure to diagnose (false negative) myometrial invasion of the uterus.

False positive results of myometrial invasion are due to polypoid tumors, pyometra, myomas, or focal adenomyosis mimicking myometrial invasion and myometrial atrophia.

False negative results occur in cases of superficial growth or microinvasion.

Magnetic resonance imaging

The erroneous magnetic resonance imaging assessment of the depth of myometrial invasion can sometimes be ascribed to as large polypoid endometrial cancer, which distends the uterus so that the thin rim of myometrium is stretched over it rather than deeply infiltrated.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

An American College of Radiology (ACR) Committee on Appropriateness Criteria and its expert panels have developed criteria for determining appropriate imaging examinations for diagnosis and treatment of specified medical condition(s). These criteria are intended to guide radiologists, radiation oncologists, and referring physicians in making decisions regarding radiologic imaging and treatment. Generally, the complexity and severity of a patient's clinical condition should dictate the selection of appropriate imaging procedures or treatments. Only those exams generally used for evaluation of the patient's condition are ranked. Other imaging studies necessary to evaluate other co-existent diseases or other medical consequences of this condition are not considered in this document. The availability of equipment or personnel may influence the selection of appropriate imaging procedures or treatments. Imaging techniques classified as investigational by the U.S. Food and Drug Administration (FDA) have not been considered in developing these criteria; however, study of new equipment and applications should be encouraged. The ultimate decision regarding the appropriateness of any specific radiologic examination or treatment must be made by the referring physician and radiologist in light of all the circumstances presented in an individual examination.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999

GUIDELINE DEVELOPER(S)

American College of Radiology - Medical Specialty Society

SOURCE(S) OF FUNDING

The American College of Radiology (ACR) provided the funding and the resources for these ACR Appropriateness Criteria™

GUIDELINE COMMITTEE

ACR Appropriateness Criteria™ Committee, Expert Panel on Women's Imaging.

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Names of Panel Members: Hedvig Hricak, MD, PhD; Ellen Mendelson, MD; Marcela Bohm-Velez, MD; Robert L. Bree, MD; Harris Finberg, MD; Elliot K. Fishman, MD; Faye Laing, MD; David Sartoris, MD; Amy Thurmond, MD; Steven Goldstein, MD

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

An update is in progress at this time. (The ACR Appropriateness Criteria™ are reviewed after five years, if not sooner, depending upon introduction of new and highly significant scientific evidence.)

GUIDELINE AVAILABILITY

Electronic copies: Available (in PDF format) from the American College of Radiology Web site.

Print copies: Available from ACR, 1891 Preston White Drive, Reston, VA 20191. Telephone: (703) 648-8900.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on December 28, 2000. The information was verified by the guideline developer on January 25, 2001.

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